Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A fusing system comprising:

a fuser roller;

a pressure roller arranged parallel to the fuser roller for providing pressure to a medium passing between the fuser roller and the pressure roller;

a heater external to the fuser roller and applying heat to the fuser roller when the heater is operated to apply heat; and

a control mechanism that controls the heater to:

reduce heat provided by the heater, by decreasing [[the]] a voltage and power that remains positive while being applied to the heater, when [[the]] a temperature of ~~either~~ the heater, the fuser roller, and the pressure roller is determined to be above a predetermined temperature.

2. (Previously Presented) The fusing system of claim 1, wherein the predetermined temperature for the heater is a maximum heater temperature of about 250 °C.

3. (Currently Amended) The fusing system of claim 1, wherein the control mechanism, after reducing heat provided by the heater, by decreasing the voltage and power applied to the heater, when the temperature of the heater is determined to be above a predetermined maximum heater temperature, controls the heater to increase heat provided by the heater, by increasing the voltage and power applied to the heater from a level of the decreased voltage and power, when the temperature of the heater is determined to fall below a predetermined target heater temperature.

4. (Original) The fusing system of claim 1, further comprising:

a heater temperature sensor that detects the temperature of the heater, and wherein the temperature of the heater is determined to be above a predetermined maximum heater temperature based on the temperature detection of the heater temperature sensor.

5. (Original) The fusing system of claim 1, wherein the heater temperature sensor is a thermistor.

6. (Original) The fusing system of claim 1, wherein the control mechanism controls the heater to reduce the heat provided by the heater when the fuser roller is determined to not be rotating.

7. (Previously Presented) The fusing system of claim 6, further comprising:

a rotation sensor that detects the rotation of the fuser roller, and wherein the temperature of the heater is reduced when the fuser roller is determined to not be rotating based on the detection by the rotation sensor.

8. (Canceled)

9. (Previously Presented) The fusing system of claim 1, wherein the predetermined temperature of the fuser roller is about 180 °C.

10. (Previously Presented) The fusing system of claim 1, further comprising:

a fuser roller temperature sensor that detects the temperature of the fuser roller, and wherein the temperature of the fuser roller is determined to be above a predetermined operating temperature based on the temperature detection of the fuser roller temperature sensor.

11. (Original) The fusing system of claim 10, wherein the fuser roller temperature sensor comprises a thermistor.

12. (Original) The fusing system of claim 1, wherein the control mechanism controls the heater to reduce the heat provided by the heater when the temperature of the pressure roller is determined to be above a predetermined pressure roller temperature.

13. (Original) The fusing system of claim 1, further comprising:

a pressure roller temperature sensor that detects the temperature of the pressure roller, and wherein the temperature of the pressure roller is determined to be above a predetermined pressure roller temperature based on the temperature detection of the pressure roller temperature sensor.

14. (Original) The fusing system of claim 13, wherein the pressure roller temperature sensor comprises a thermistor.

15. (Original) The fusing system of claim 1, wherein the heater is a heating roller operable to contact the fuser roller.

16. (Original) The fusing system of claim 1, wherein the control mechanism comprises a processor programmed to provide control functions.

17. (Original) The fusing system of claim 1, wherein the control mechanism comprises a control circuit.

18. (Original) The fusing system of claim 17, wherein the control circuit comprises:

a switch controlling power to a heater lamp of the heater; and

a comparison circuit which is configured to receive an input signal indicative of the temperature of the heater and to provide an output causing the switch to prevent power to the heater lamp when the input signal indicative of the temperature of the heater indicates that the temperature of the heater is above a predetermined maximum heater temperature.

19. (Original) The fusing system of claim 18, wherein the comparison circuit is further configured to receive an input signal indicative of the temperature of the fuser roller and to provide an output causing the switch to prevent power to the heater lamp when the input signal indicative of the temperature of the fuser roller indicates that the temperature of the fuser roller is above a predetermined operating temperature.

20. (Original) The fusing system of claim 18, wherein the comparison circuit is further configured to receive an input signal indicative of the rotation of the fuser roller and to provide an output causing the switch to prevent power to the heater lamp when the input signal indicative of the rotation of the fuser roller indicates that the fuser roller is not rotating.

21. (Previously Presented) The fusing system of claim 18, wherein the comparison circuit comprises a plurality of comparators having outputs connected to inputs of the switch.

22. (Original) The fusing system of claim 21, wherein the switch comprises a photo diac coupled with a triac.

23. (Currently Amended) A method of controlling temperature for a fusing system comprising a fuser roller, a pressure roller arranged parallel to the fuser roller for providing pressure to a medium passing between the fuser roller and the pressure roller, and a heater external to the fuser roller and applying heat to the fuser roller when the heater is operated to apply heat, the method comprising:

reducing heat provided by the heater, by decreasing [[the]] a voltage and power that remains positive while being applied to the heater, when [[the]] a temperature of ~~either~~ the heater, the fuser roller, and the pressure roller is determined to be above a predetermined temperature.

24. (Previously Presented) The method of claim 23, wherein the predetermined temperature for the heater is a maximum heater temperature of about 250 °C.

25. (Currently Amended) The method of claim 23, further comprising:

increasing heat provided by the heater, by increasing the voltage and power applied to the heater from a level of the decreased voltage and power, when the temperature of the heater is determined to fall below a predetermined target heater temperature after reducing heat provided by the heater, by decreasing the voltage and power applied to the heater, when the temperature of the heater is determined to be above a predetermined maximum heater temperature.

26. (Original) The method of claim 23, wherein when the temperature of the heater is determined to be above a predetermined maximum heater temperature, the heater is operated not to apply heat.

27. (Original) The method of claim 23, further comprising:

reducing the heat provided by the heater when the fuser roller is determined to not be rotating.

28. (Original) The method of claim 27, wherein when the fuser roller is determined to not be rotating, the heater is operated not to apply heat.

29. (Original) The method of claim 23, further comprising:

reducing the heat provided by the heater when the temperature of the fuser roller is determined to be above a predetermined operating temperature.

30. (Original) The method of claim 29, wherein the predetermined operating temperature is about 180 °C.

31. (Original) The method of claim 29, wherein when the temperature of the fuser roller is determined to be above a predetermined operating temperature, the heater is operated not to apply heat.

32. (Original) The method of claim 23, further comprising:

reducing the heat provided by the heater when the temperature of the pressure roller is determined to be above a predetermined pressure roller temperature.

33. (Original) The method of claim 32, wherein when the temperature of the pressure roller is determined to be above a predetermined pressure roller temperature, the heater is operated not to apply heat.